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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,770	01/05/2001	Timothy M. Moore	205723	3169

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EXAMINER

PHAM, THOMAS K

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/755,770	<b>Applicant(s)</b> MOORE ET AL.	
	<b>Examiner</b> Thomas K Pham	<b>Art Unit</b> 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 January 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**First Action on the Merits**

1. Claims 1-21 of U.S. Application 09/755,770 filed on 01/05/2001 are presented for examination.

**Quotations of U.S. Code Title 35**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### **Claim Rejections - 35 USC § 102**

6. Claims 1, 5-11 and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,336,135 ("Niblett").

#### **Regarding claim 1**

Niblett teaches a method of preventing blocking of an application communicating with another device utilizing a connection, wherein the application has a user interface for accepting a user input from and presenting an output to a user, the user input including at least one command requiring communication with a server (col. 10 lines 1-8, "The Web Server software ... to generate the HTML"), wherein the user input is handled by the application, the method comprising the steps of:

- forwarding, by the application-client, a user request to the user interface to an application-client (col. 4 lines 39-44, "means, responsive to a request ... as an asynchronous communication");
- issuing, by the application-client, a confirmation message to complete a request-acknowledgment loop between the user interface and the application-client prior to executing the request thereby freeing the user interface to process subsequent user input prior to completion of the request (col. 10 lines 13-23, "FIG. 2 is a simplified ... onto a queue 140");
- storing user input from the user interface for subsequent handling by an application-client (col. 10 lines 27-29, "The message queues are ... they are later removed"); and

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- communicating, by the application-client with the server to handle the user input received from the user interface (col. 10 lines 23-25, "A server application program ... when it is ready to process the message").

**Regarding claim 5**

Niblett teaches organizing data to be transmitted in a transaction into functional segments (col. 10 lines 31-34, "A message queue ... removed from the front"); and defining a state of the application-client and a state of the server communicating over the connection by functional segments (col. 10 lines 34-45, "The physical representation ... system as the application").

**Regarding claim 6**

Niblett teaches determining the state of the application-client by referencing locally stored functional segments (col. 10 lines 53-56, "it is the network ... managers in the network").

**Regarding claim 7**

Niblett teaches a description of a step of providing the state of the application-client to the server transmitted to the application-client in the transaction (col. 13 lines 4-10, "This data is presented ... application to start up").

**Regarding claim 8**

Niblett teaches determining the state of the server by identifying functional segments already available locally at the server (col. 8 lines 48-67, "The server responds ... is available at the server").

**Regarding claim 9**

Niblett teaches providing the state of the server to the application-client to determine a set of remaining functional segments to be transmitted to the server in the transaction (col. 9 lines 1-5,

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“session state information ... part of the same application”).

**Regarding claim 10**

Niblett teaches updating the state of the application-client and the state of the server during a transaction over the connection (col. 8 lines 53-67, “The communication sent back ... is available at the server”).

**Regarding claim 11**

Niblett teaches updating the state of the application-client and the server during a transaction over the connection to facilitate the transaction in the event of the dynamic connection failing whereby avoiding repeating the entire transaction (col. 7 line 56 to col. 8 line 11, “there is a determination ... after an appropriate time period”)

**Regarding claim 13**

Niblett teaches a device for communicating with a network over a connection, the device comprising:

- at least one application having at least one software module for presenting a user interface and at least one client module for asynchronously communicating with a server (col. 4 lines 31-36, “a data communications server ... communication with programs”);
- a media-sense module for detecting whether the connection is operational (col. 10 lines 47-60, “Application programs communicate ... complex communications controls”);
- a first software module for saving a state of the client module (col. 10 lines 19-22, “a first application program ... onto a queue 140”); and

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- a second software module for retrieving the saved state and continue the session when the connection is restored (col. 10 lines 23-25, "A serving application program 150 ... ready to process the message").

**Regarding claim 14**

Niblett teaches the client module receives user input from more than one user interface (col. 10 lines 1-3, "The Web Server software ... from the Web Browsers").

**Regarding claim 15**

Niblett teaches the client module transmits data over the connection in response to a media sense event generated by the media-sense module, the media sense event corresponding to establishment of the connection (col. 10 lines 42-45, "Applications can view ... as the application").

**Claim Rejections - 35 USC § 103**

7. Claims 2-4, 12 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niblett in view of U.S. Patent No. 6,542,931 ("Le").

**Regarding claims 2, 3 and 4**

Niblett teaches preventing blocking of an application communicating with another device utilizing a connection but does not teach estimating an error rate for successfully transmitting data of interest over the connection; and selecting a frame size based upon the error rate, estimating a bandwidth-delay, due to link and network congestion, for successfully transmitting data of interest over the connection; and selecting a frame size based upon the bandwidth-delay, using a default frame size as the frame size if an error rate is not available. However, Le teaches

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using sparse feedback to increase the inefficiency in high delay, low bandwidth environment (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method of improving bandwidth of Le with the system of Niblett because it would provide for eliminating the inefficiency use of network bandwidth caused by numerous acknowledgment transmitted by the receiver to the transmitter.

**Regarding claim 12**

Niblett teaches the connection to the server could be on one of many communications network (col. 11 lines 34-37, "The system on which ... via another communication network"). It would have been obvious to one of ordinary skill in the art at the time of the invention that the connection to the server can be a wireless connection since wireless technology is well known in the art to be used in virtually any application.

**Regarding claim 16**

Niblett teaches the queue manager program responsible for the physical communication and message management of the queues (col. 10 lines 34-45, "The physical representation ... system as the application"). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the queue managers are also responsible for the failure of the connection to insure messages are transmitted to the server asynchronously in reply to the client's request.

**Regarding claim 17**

Niblett teaches the client module stores an interrupted data transmission for subsequent attempts (col. 10 lines 19-22, "a first application ... onto a queue 140").

**Regarding claim 18**



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Niblett teaches the client module updates a state of the server, the state corresponding to data to be transmitted over the connection (col. 8 lines 53-67, “The communication sent back ... is available at the server”).

**Regarding claim 19**

Niblett teaches the client module updates a state of the client module, the state corresponding to data to be transmitted over the connection (col. 8 lines 53-67, “The communication sent back ... is available at the server”).

**Regarding claim 20**

Niblett teaches the client module updates a state of the server, the state corresponding to data already transmitted over the connection (col. 8 lines 48-67, “The server responds ... is available at the server”).

**Regarding claim 21**

Niblett teaches the client module updates a state of the client module, the state corresponding to data already transmitted over the connection (col. 8 lines 48-67, “The server responds ... is available at the server”).

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874, Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor *Mr. Anthony Knight* at (703) 308-3179.

Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the 4th floor)**, or fax to the **official fax number (703) 872- 9306**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

**Thomas Pham**  
*Patent Examiner*

TP

May 3, 2004



**Anthony Knight**  
**Supervisory Patent Examiner**  
**Group 3600**